

cells. Further work is expected to show to what extent the physical forces concerned in the living and inorganic material are identical.—CHARLES J. CHAMBERLAIN.

Ovulate flower of *Gnetum*.—The publication of Miss BERRIDGE's paper²⁷ on the ovulate strobilus of *Gnetum Gnemon*, in which she gave evidence for the conclusion that the ovule was "primitively surrounded by a whorl of male flowers," has called out a paper by LIGNIER and TISON²⁸ upon the same structure. They have found material that seems to indicate that the "third integument" of the ovule is a modified axis of inflorescence that bore an axillary ovule; and that occasionally an axillary group of staminate flowers is present, which indicates a connection with *Welwitschia*.—J. M. C.

Beech forest on chalk and on schist.—Comparing the English beech forests on chalk with the French on schist SKENE²⁹ finds that they are exactly similar ecologically, and that scarcely a member of the latter is a calcifugous plant, while scarcely a single member of the former is a calcicolous plant. Topographically there is no distinction between the two types. This leads SKENE to question the accuracy of placing the two forests in different formations according to the classification adopted by British ecologists.—GEO. D. FULLER.

A bibliography of mitosis.—A very useful list of works on meiosis and somatic mitosis in the angiosperms since 1880 has been compiled by PICARD.³⁰ The forms are arranged according to systematic position. Although the author has not attempted to make the citations on the individual plants exhaustive, the 300 and more citations given justify him in his belief that from the list one can obtain reference to all the literature of the subject.—L. W. SHARP.

Embryogeny of the Ranunculaceae.—In continuing his studies of the Ranunculaceae, SOUÈGES³¹ has described the development of the embryo of *Ficaria ranunculoides*, including some interesting cytological details.—J. M. C.

²⁷ See BOT. GAZ. 55:172. 1913.

²⁸ LIGNIER, O., et TISON, A., L'ovule tritégumenté des *Gnetum* est probablement un axe d'inflorescence. Bull. Soc. Bot. France 60:64-72. figs. 5. 1913.

²⁹ SKENE, MACGREGOR, The relation of the beech forest to edaphic factors. Jour. Ecol. 1:94-96. 1913.

³⁰ PICARD, M., A bibliography of works on meiosis and somatic mitosis in the angiosperms. Bull. Torr. Bot. Club 40:575-590. 1913.

³¹ SOUÈGES, R., Recherches sur l'embryogénie des Renonculacées. Bull. Soc. Bot. France 60:150-157. pl. II. figs. 288-315. 1913.